

AFHCAN STATUS

November 2003

AFHCAN Network

- AFHCAN has successfully built a statewide network, currently linking 156 of 235 sites.
- This network is used for telehealth, teleradiology, telephone, fax, videoconferencing, access to patient records, telepharmacy, etc.

AFHCAN Cart

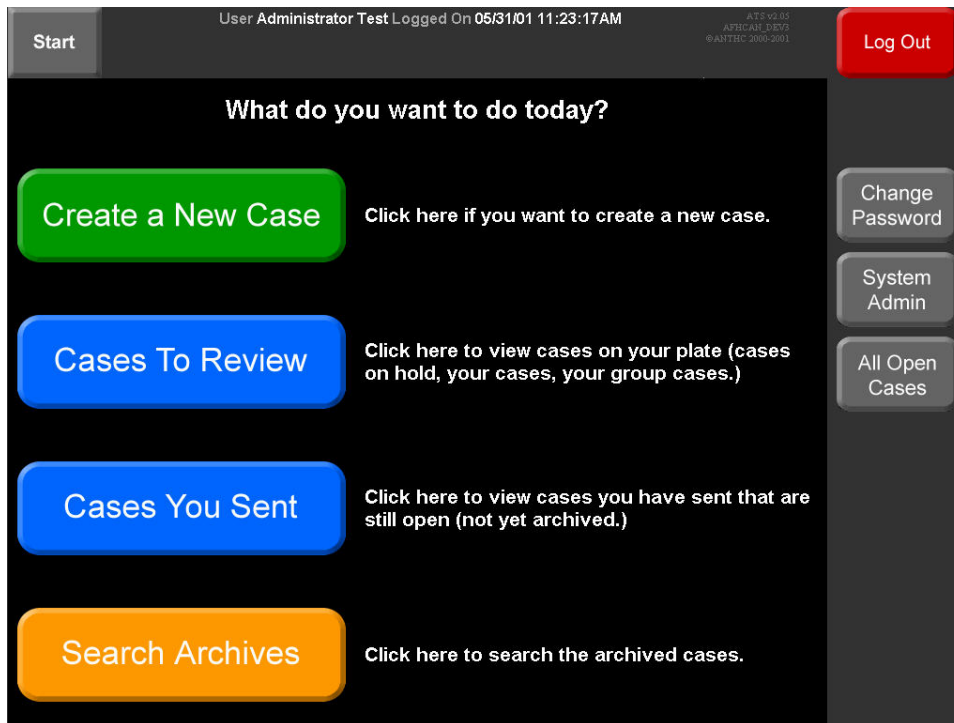


AFHCAN has deployed almost 300 carts to over 200 locations.

The “Cart” has proven to be exceptionally robust, with minimal downtime and exceptional durability.

These carts are the basis for many telehealth cases being created statewide.

AFHCAN Software



AFHCAN Software now supports a unique “server-to-server” capability, allowing multiple organizations to communicate in a secure and efficient manner.

AFHCAN Utilization

AFHCAN Case Numbers

(9/15/2003)

TOTAL Cases:	13,327
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Archived Real Cases:	9,743
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Archived Test Cases:	2,169
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Open Cases:	1,415
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(Note: Duplicate counts due to Server-to-Server)

For comparison ...

- “Through the ... review of the general literature, they identified 455 telemedicine programs, of which 362 are in the United States.”
- “In 1997, about **12,000 encounters** were done [worldwide] using store-and-forward applications.”

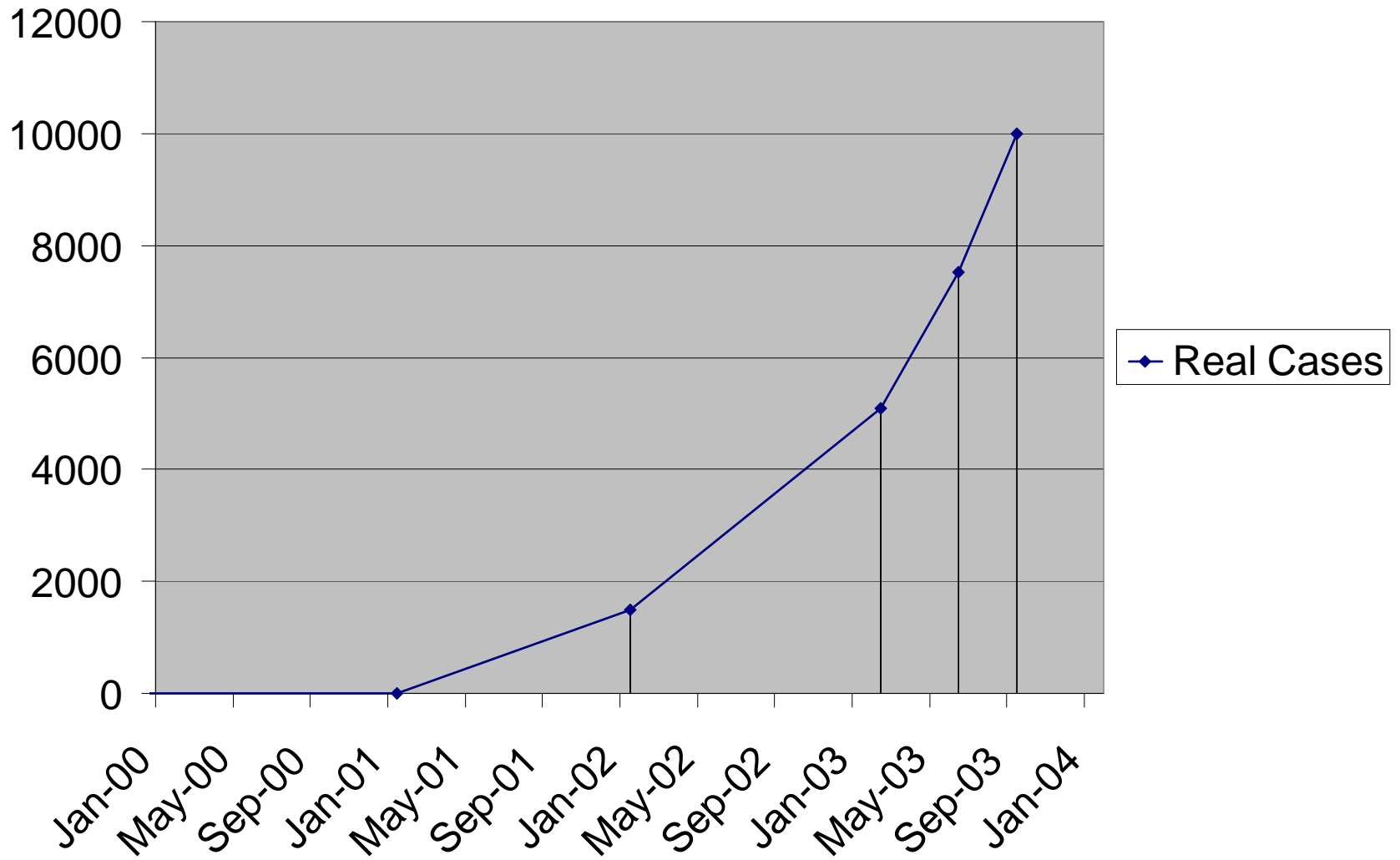
Telemedicine for the Medicare Population

Agency for Healthcare Research and Quality Evidence Report/Technology Assessment Number 24

Prepared by Oregon Health Sciences University, Evidence-based Practice Center

July 2001

Cumulative Real AFHCAN Cases



AFHCAN Equipment Usage

(Archived Real Cases)

TOTAL Archived Real Cases:	9,743	
Cases with electronic forms:	871	(9%)
Cases with User Comments:	5,001	(51%)
Cases using the ECG:	647	(7%)
Cases using the Digital Camera:	4,088	(42%)
Cases using the Video Otoscope:	4,709	(48%)
Cases using the Scanner:	2,163	(22%)
Cases using no equipment:	321	(3%)

AFHCAN Equipment Usage

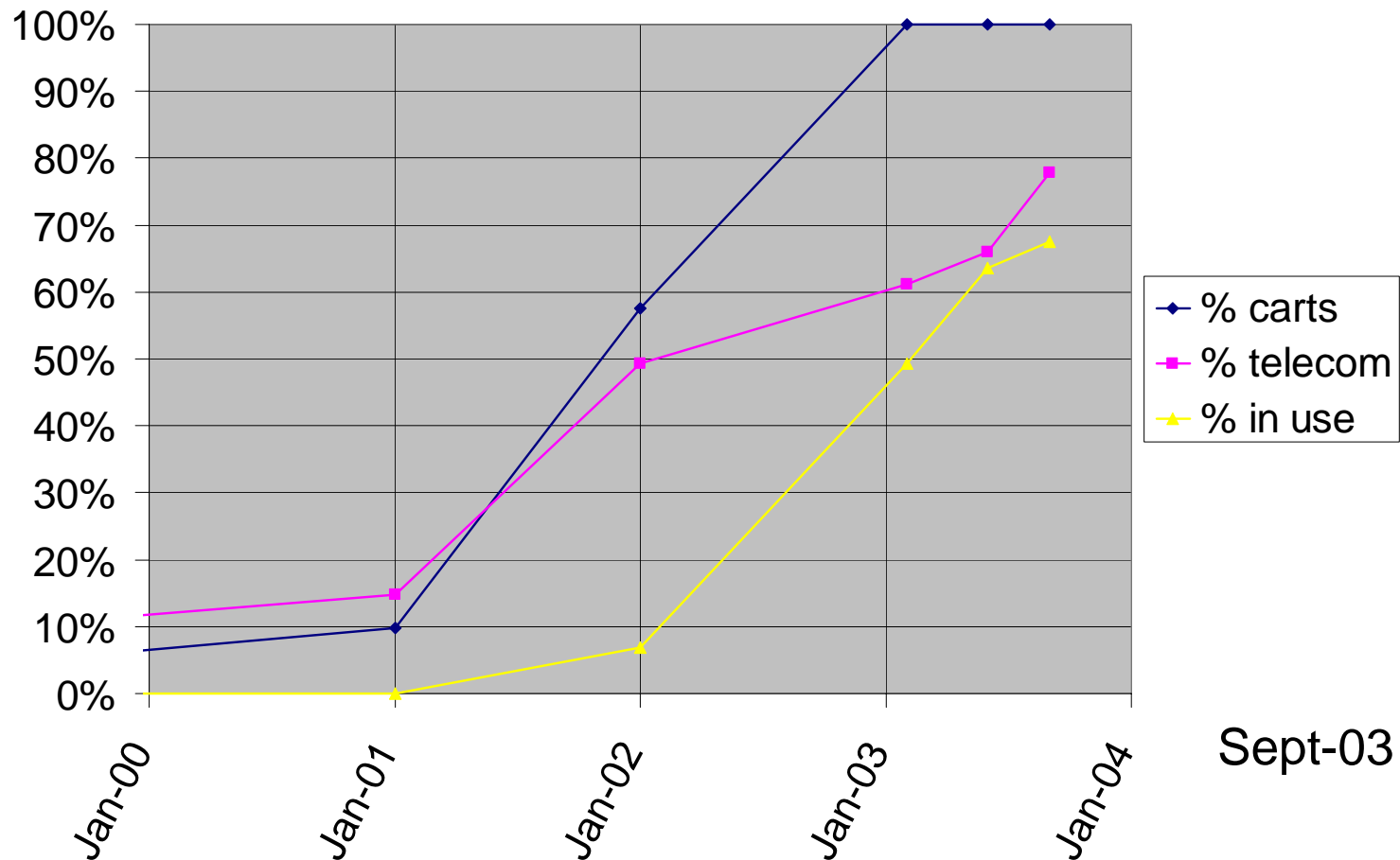
(Estimates of Images / Data acquired)

	# Images		TOTAL
	Real Cases	Test Cases	
Video Otoscope	15,524	3,456	18,980
Digital camera	14,891	3,315	18,206
Scanner	4,206	936	5,142
ECG	2,488	554	3,042

Estimates are based on extrapolation from weekly reports.

Cart use

AFHCAN Cart Utilization at ATHS Sites



Sept-03

AFHCAN Evaluation

Your voluntary participation in this survey helps to assess the hardware, software, and clinical utility of telemedicine. Precautions are taken to assure that your answers remain anonymous. There is, however, the unlikely possibility that someone could hack into the database at your institution and retrieve medical records as well as answers to this survey.

If you choose not to participate in this survey, press the 'Skip Question' button. Otherwise, please select an answer and press the 'Done' Button.

Done

Skip
Question

Please Answer This Question

1. For this case, rate the following statement: "Telemedicine helps me
COMMUNICATE with a doctor."

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree

Comment

Decreased Travel ...

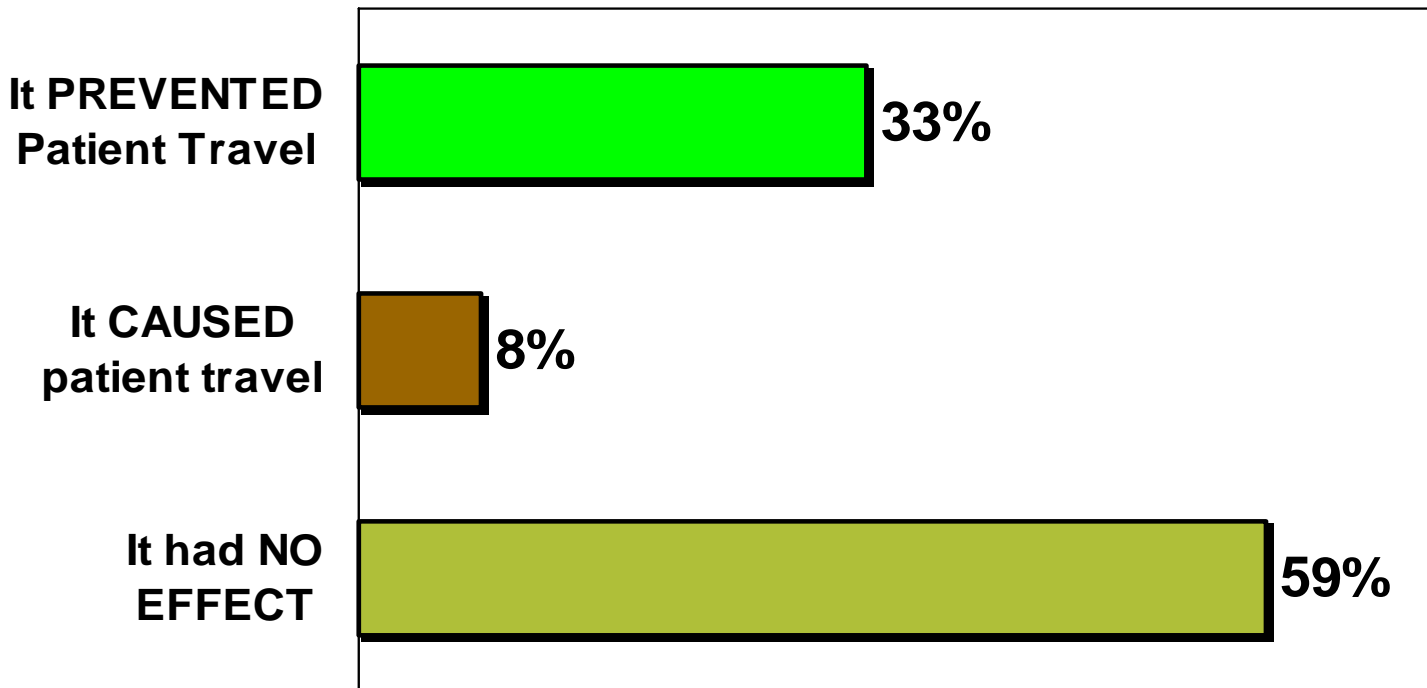
Overall savings on all cases

Medicaid study

“Many simple problems, such as tympanostomy tube follow can be done with telemedicine **without asking the patient to leave their village.**”

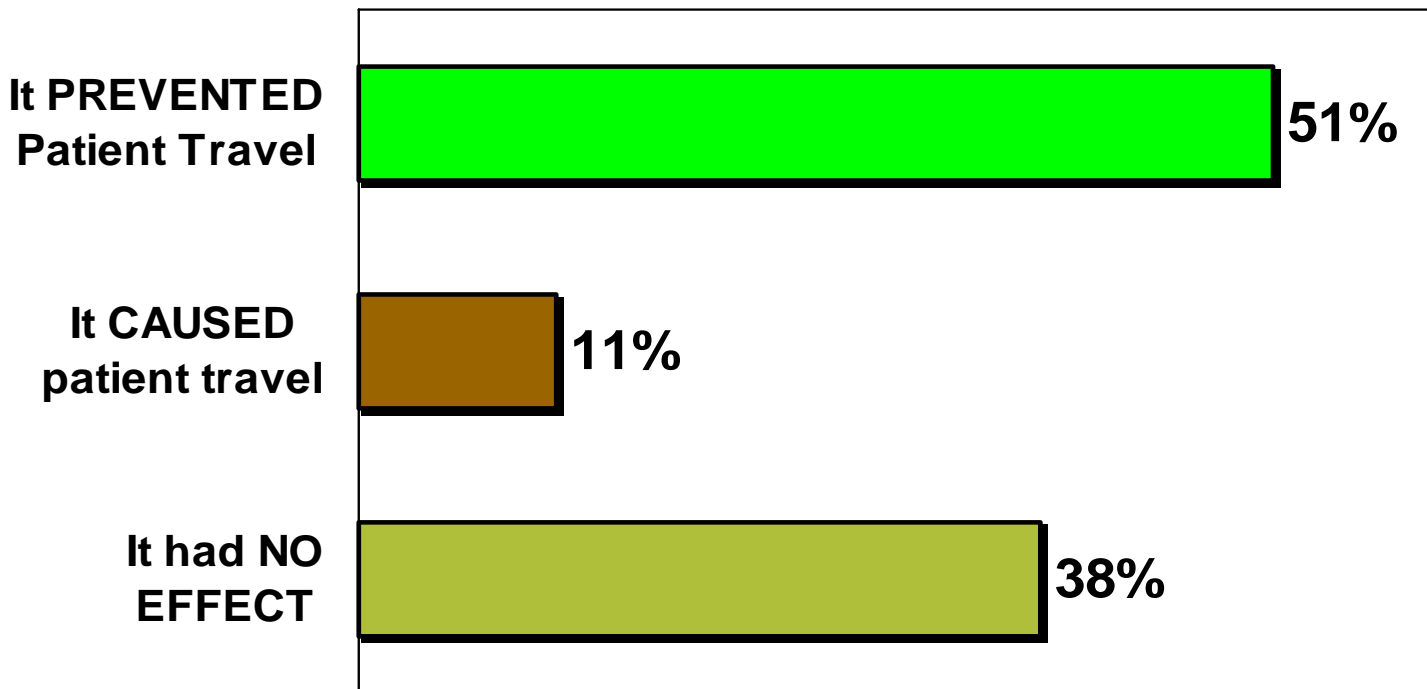
Did viewing this telemedicine case/image affect PATIENT TRAVEL for diagnosis or treatment of this case (compared to a phone consult)? ($n=4091$)

(Since Project began)



Did viewing this telemedicine case/image affect PATIENT TRAVEL for diagnosis or treatment of this case (compared to a phone consult)? ($n=809$)

(Since Dec 15th 2002)



Medicaid Study

Decreased Travel = Cost Savings

	Quantity	Cost
Claims paid by Medicaid	91	(\$6,970)
<hr/>		
Telemedicine Prevented travel	77	\$30,800
Assume:		
• Only specialty clinic travel is being saved.		
• 85% of cases were from village → region		
• All cases had an escort		
• Travel costs are \$200 RT per person		
• No lodging / per diem calculated		
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Net Savings Realized by Medicaid		\$23,830

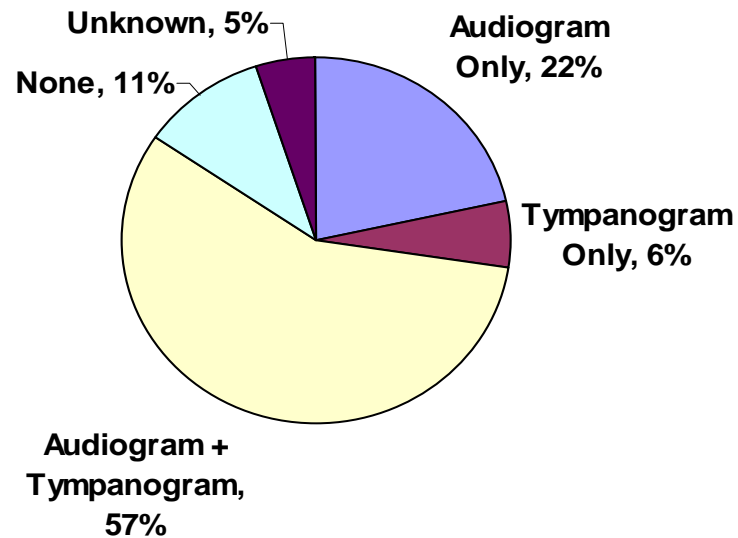
Note: For every \$1 spent by Medicaid on reimbursement, \$4.41 is saved on travel costs.

Improved Access to Care ...

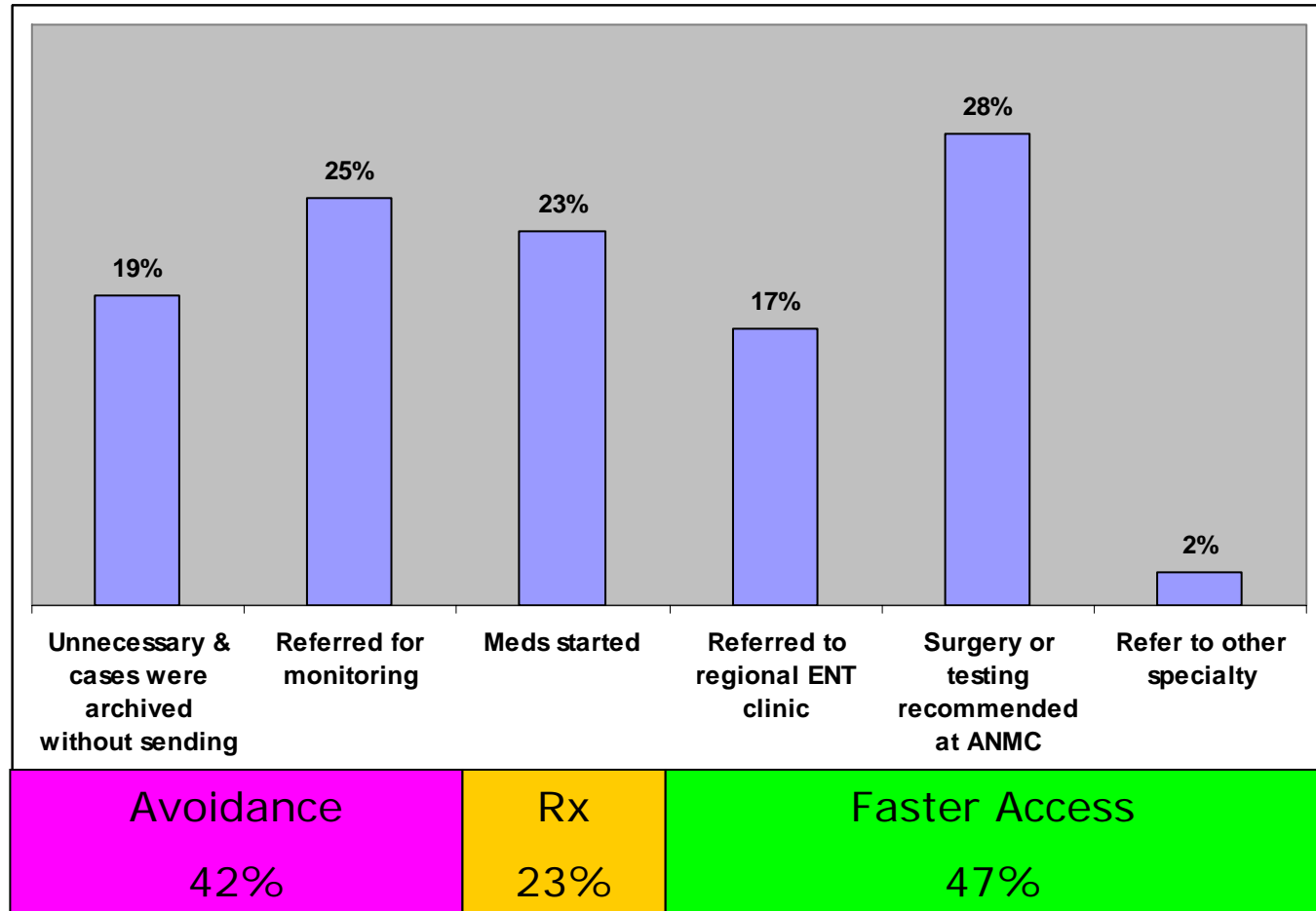
Traveling Audiologist Program AFHCAN “Virtual ENT” Clinic

- Sites: 5
 - *Aniak, St. Mary’s, Pt. Hope, Hooper Bay, Buckland*
- Patients: 102
- Cost: ~ \$8300

Services Supplied



Outcomes



Note: Percentages may not add to 100% due to multiple outcomes per case.

NSHC Experience

- During 2001
 - Referrals for ENT clinic backlogged **12-15 months**
 - **80-100** outstanding new referrals
 - Since January 2002
 - Referrals for ENT clinic backlogged **2-4 months**
 - **47** outstanding new referrals
-

NORTON SOUND HEALTH CORPORATION.

“The specialty clinic manager came to see me this morning to indicate that there were **four open slots in ENT clinic for September.**

This is the first time they were having a tough time to fill those spots!! Speaks well of the telemedicine.”

Triage - the ability to send directly to ANMC

“We have been able to identify serious problems and arrange treatment much sooner than would have been the case without telemedicine.

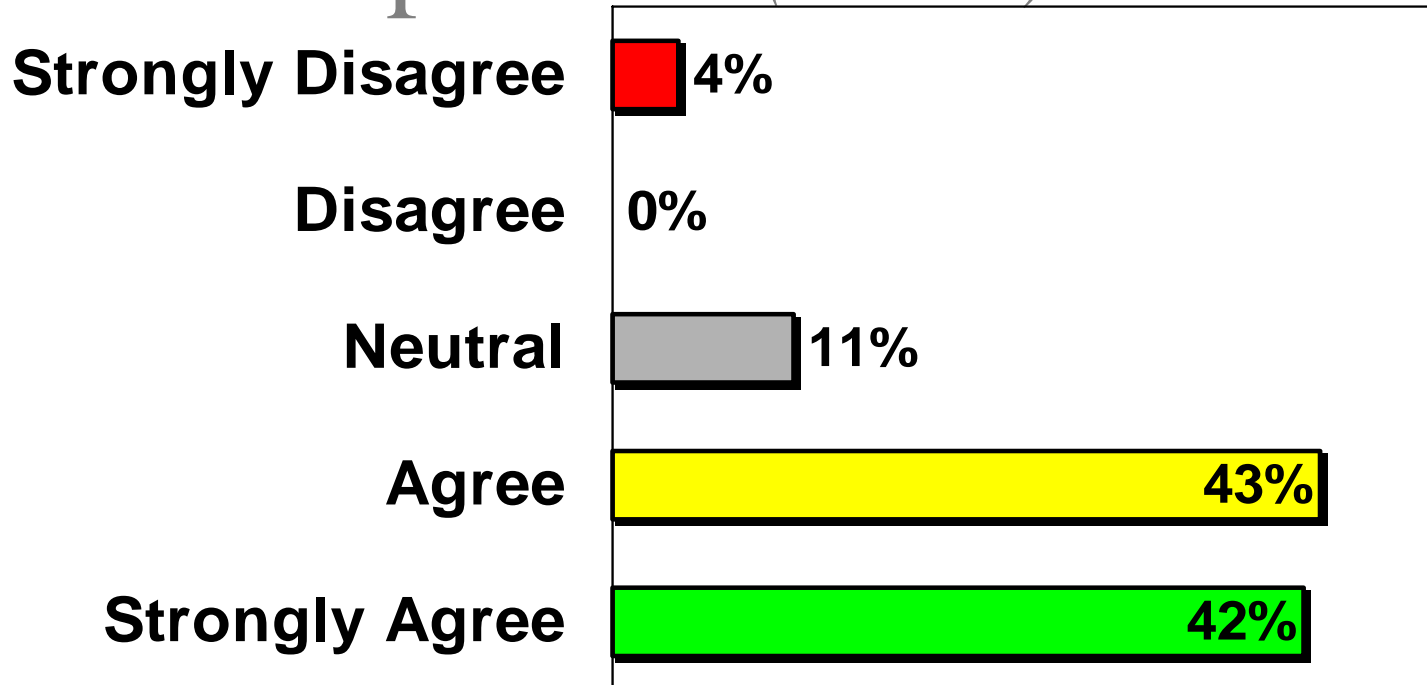
For example, children with severe hearing loss secondary to serous otitis media are being identified and directed into ANMC for surgery in a matter of days.”

“Another child with a history of missing follow up appointments was diagnosed with a hearing threatening cholesteatoma and immediately referred for treatment. **This definitely prevented a poor outcome.** “

Quality of Care

For this case, rate the following statement:

Telemedicine will improve the
QUALITY OF CARE for this
patient. ($n=483$)



Honest to Goodness Life Saved

In June, a woman came to Maniilaq Medical Center with a ruptured ectopic pregnancy, hemorrhaging, and failing rapidly.

Maniilaq has no operating room, nor a surgeon -- nor anesthesia.

Due to heavy fog, there was no way to medevac the patient to a larger facility.

Dr. Michael Orms, a family practitioner needed some assistance.

Orms called Daniel R. Szekely, MD, Medical Director, Women's Health at the Anchorage Native Primary Care Center at Alaska Native Medical Center (PCC), for guidance on how to do a laparotomy using local anesthesia.

The staff at the AFHCAN office provided a videoconferencing link and Szekely asked Kotzebue staff to bring its Polycom videoconferencing equipment into the room so he could observe the surgery from Anchorage. Szekely was able to offer Orms reassurance as well as guidance based on real-time images transmitted via satellite.

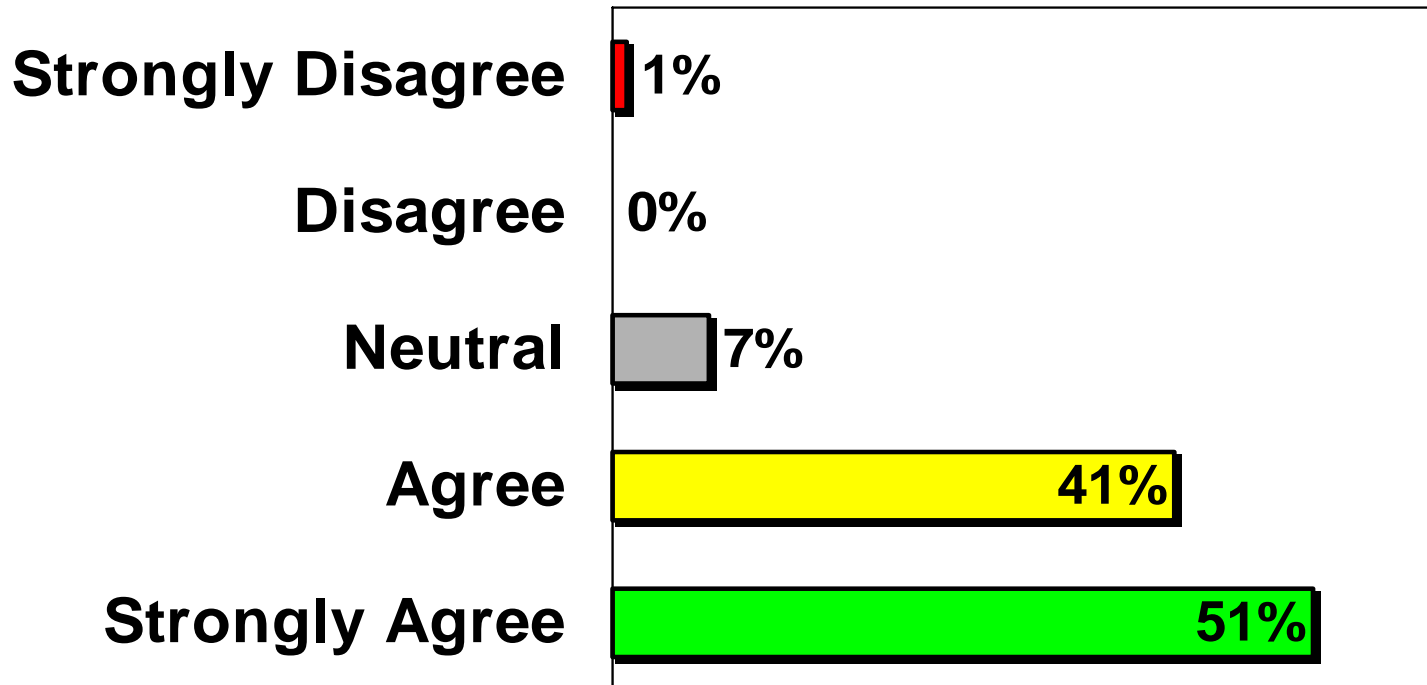
“From my perspective, being one of those primary care providers who is on the frontier, in Bush Alaska,” Orms said, “the technology was a vital part of providing appropriate care for that patient. We were able to conduct an exploratory surgery that was a life-saving procedure for that patient.”

A Communication Tool

“Having pertinent documents from the field available has helped our office workflow by telemedicine. **It helps us eliminate re-work** such as repeating audiograms that were previously done in the field.”

For this case, rate the following statement:

Telemedicine helps me
COMMUNICATE with a doctor .
(n=413)

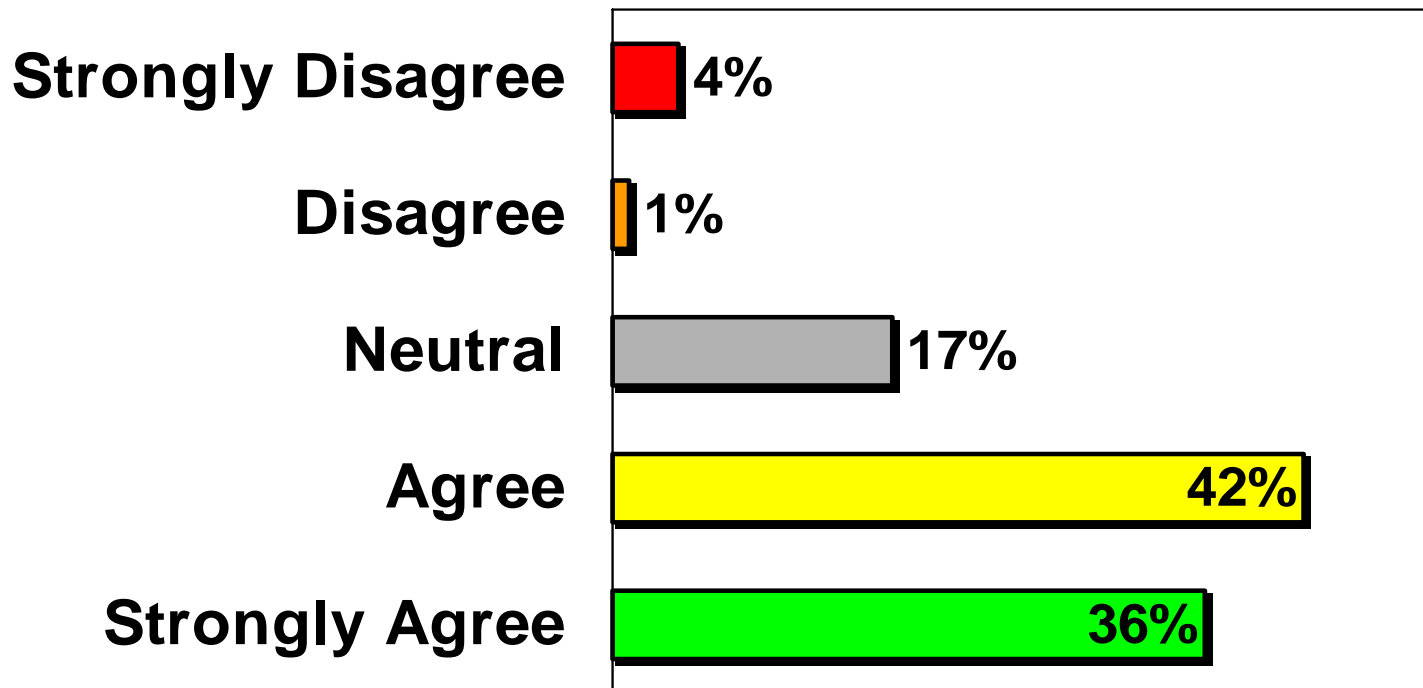


“Providers in the field have increased job satisfaction in that they get immediate feedback on cases and have an opportunity to discuss cases and treatment plans in an on line forum.

We have reports from an audiologist in the field that he is **much happier in his job** as a result of this. “

For this case, rate the following statement:

Telemedicine makes MY JOB MORE FUN. ($n=659$)



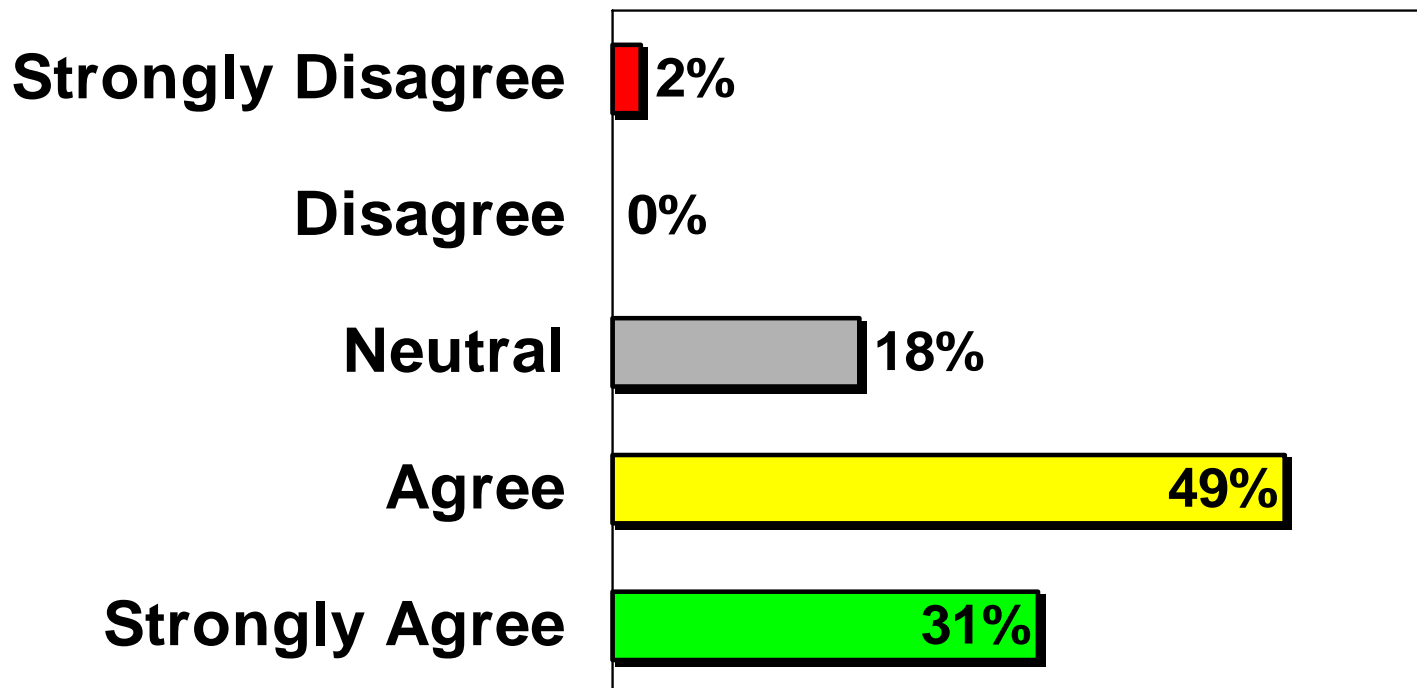
Patient Satisfaction

“We have reports that patients are amazed that their problems are getting addressed so rapidly and they are comforted to know that their or their child’s problems is being reviewed by a specialist in such a rapid fashion.”

For this case, rate the following statement:

Telemedicine improved PATIENT SATISFACTION.

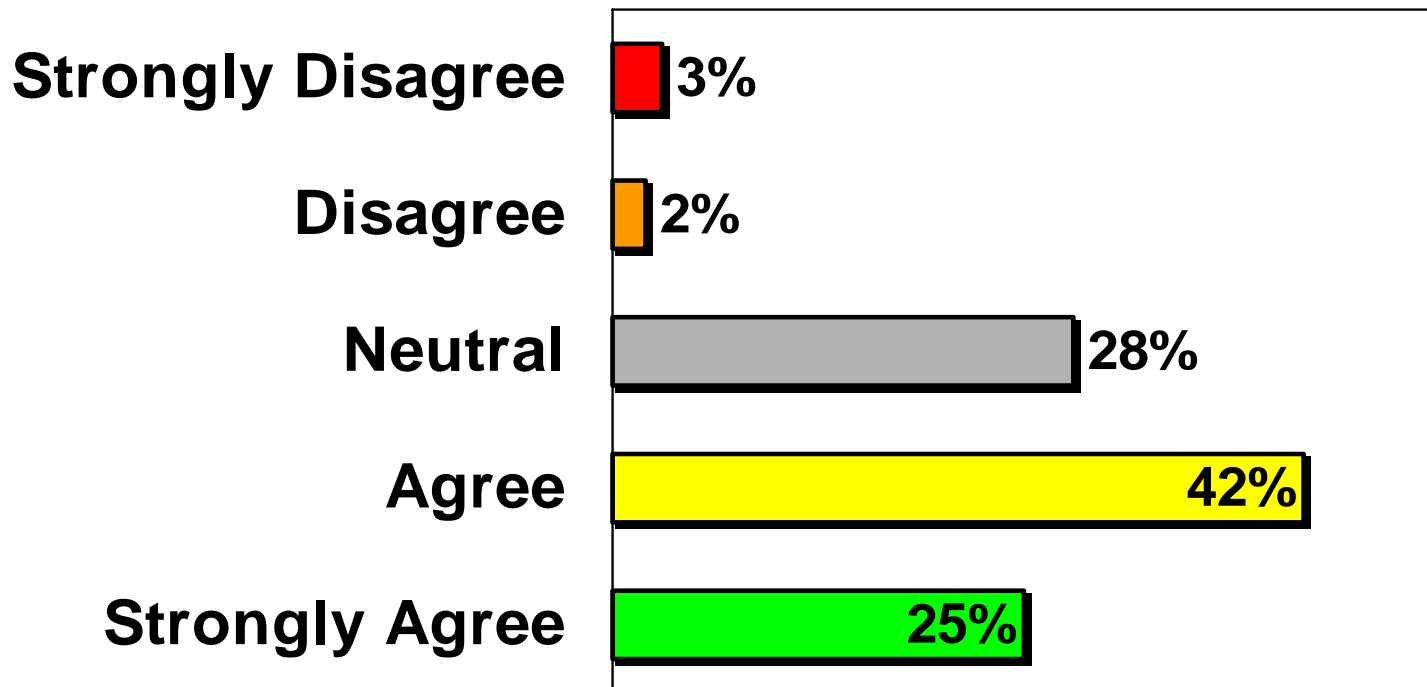
(n=446)



“Very informative, I love the new machine. I am glad to have been able to see my daughter's ears through the machine and to have the info saved for future charting.”

For this case, rate the following statement:

The telemedicine system played a
role in EDUCATING THIS
PATIENT. ($n=512$)



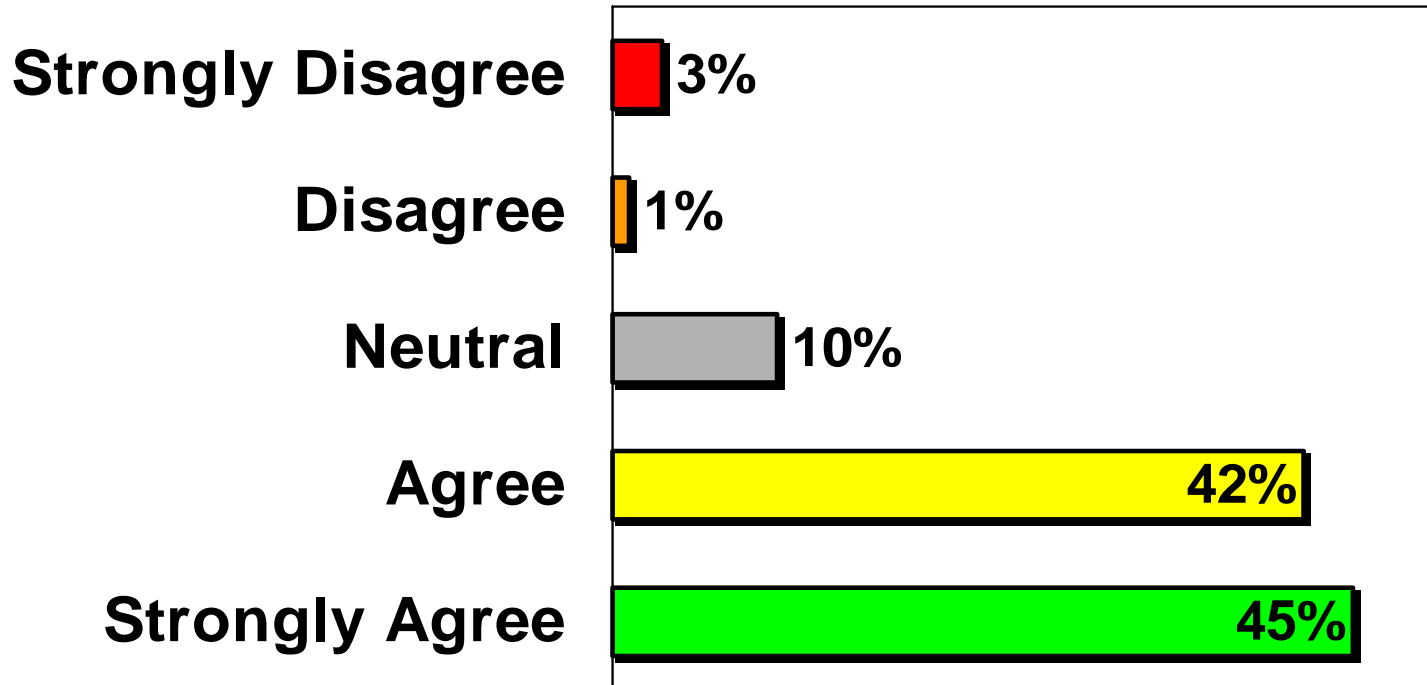
“I was able to see the problem - then the repaired normal condition - and discussed my problem - very informative!”

“I liked to see with my own eyes the inside of my ear!”

Technical Evaluation

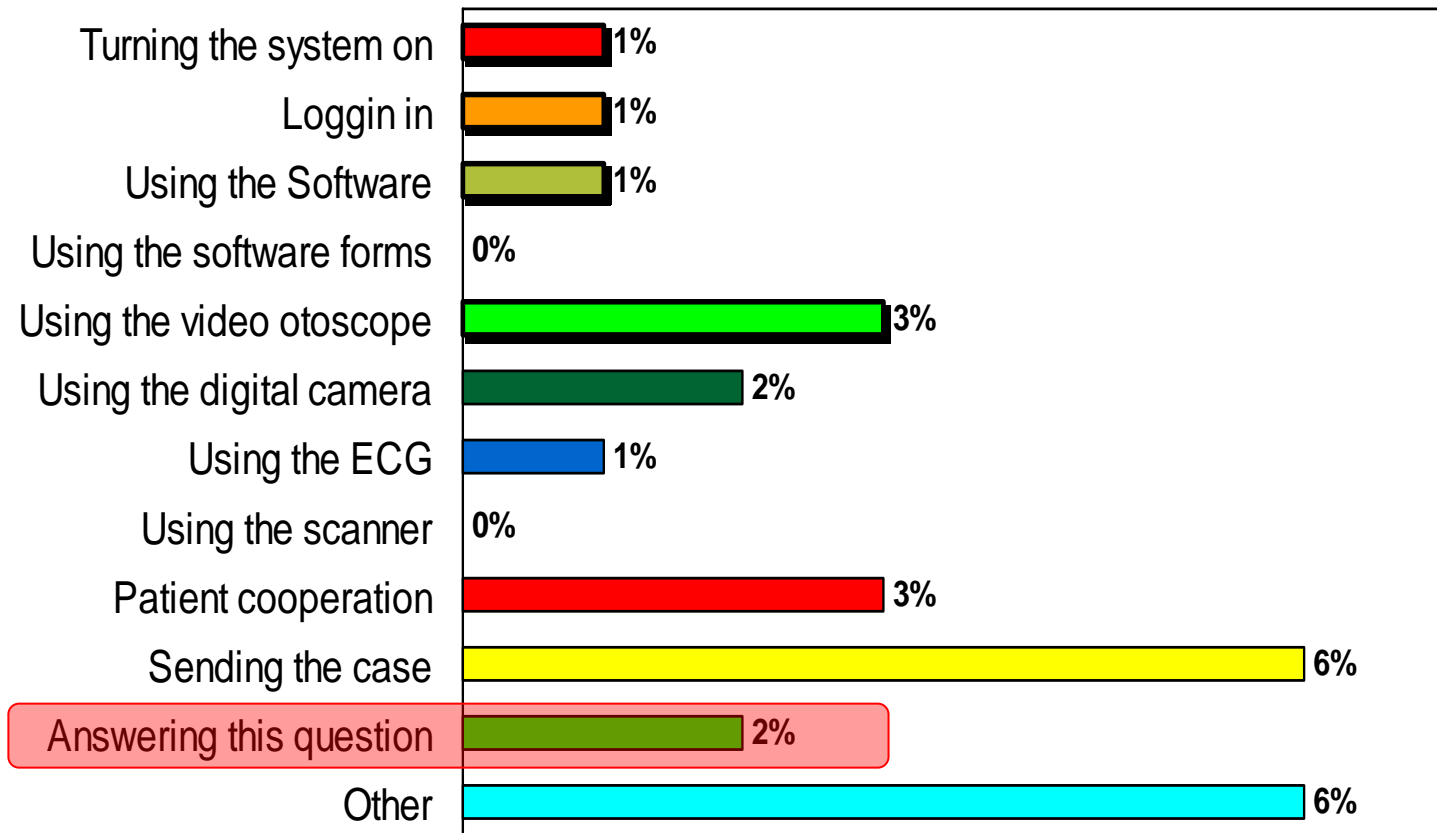
For this case, rate the following statement:

The SOFTWARE is EASY TO
USE. ($n=420$)



For this case, rate the following statement:

In creating this case, what did you have the most difficulty with? ($n=701$)



(Not shown: 73% had no difficulty)

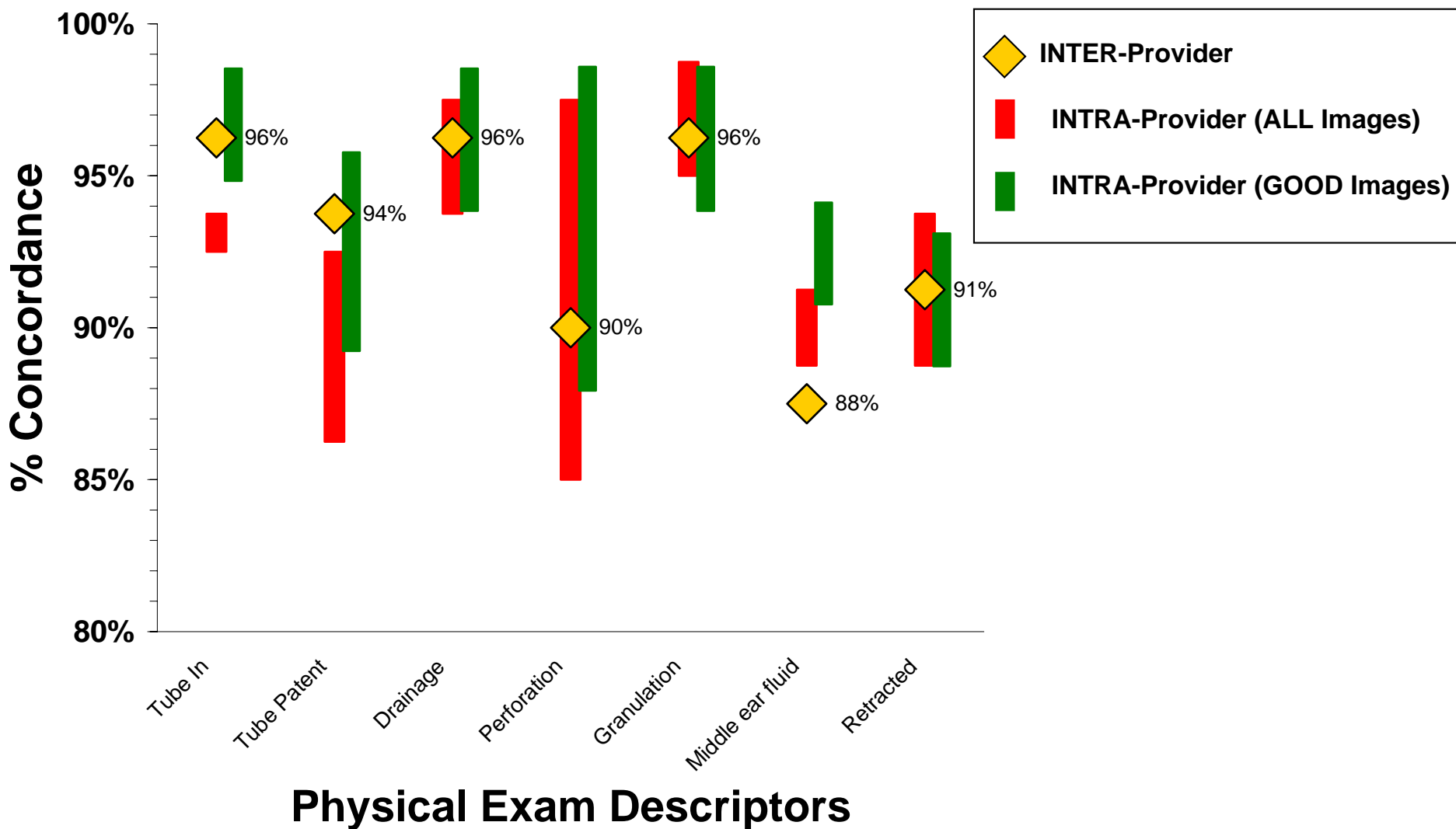
PE Tube Study

Documenting the validity of new clinical processes ...

Tympanostomy tube follow up study
Why?

- 350 sets of tubes placed by ANMC providers in FY 01
- 1000 -1300 follow up appointments needed in 13 month period
- Many of these patients from remote areas

% CONCORDANCE ON PHYSICAL EXAM



Ear tube follow up study

Initial impression

Correlation between in person exam and telemedicine exam good to excellent

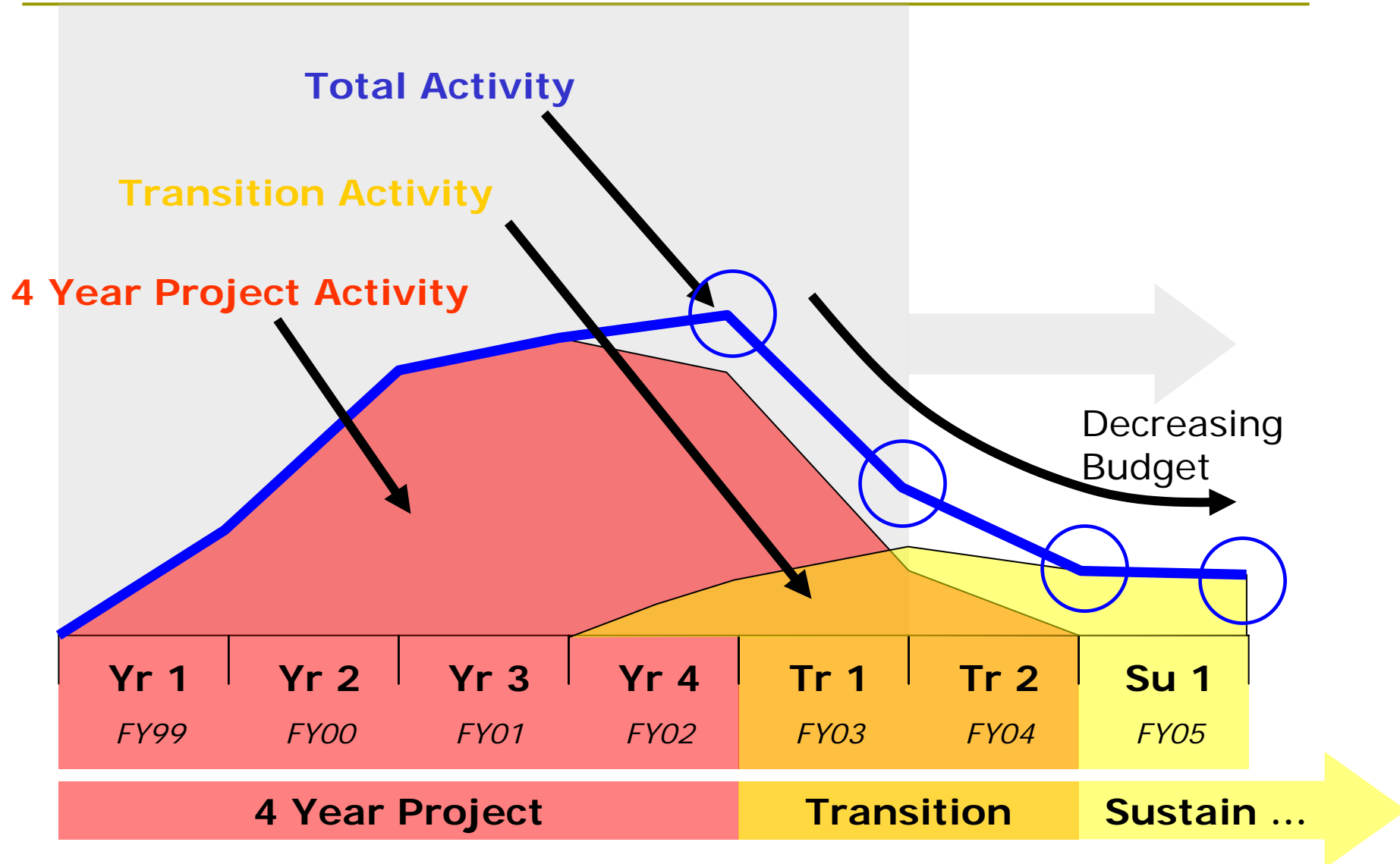
Telemedicine can be used to do routine ear tube follow up

More convenient for patients and families

Make available several hundred appointments per year

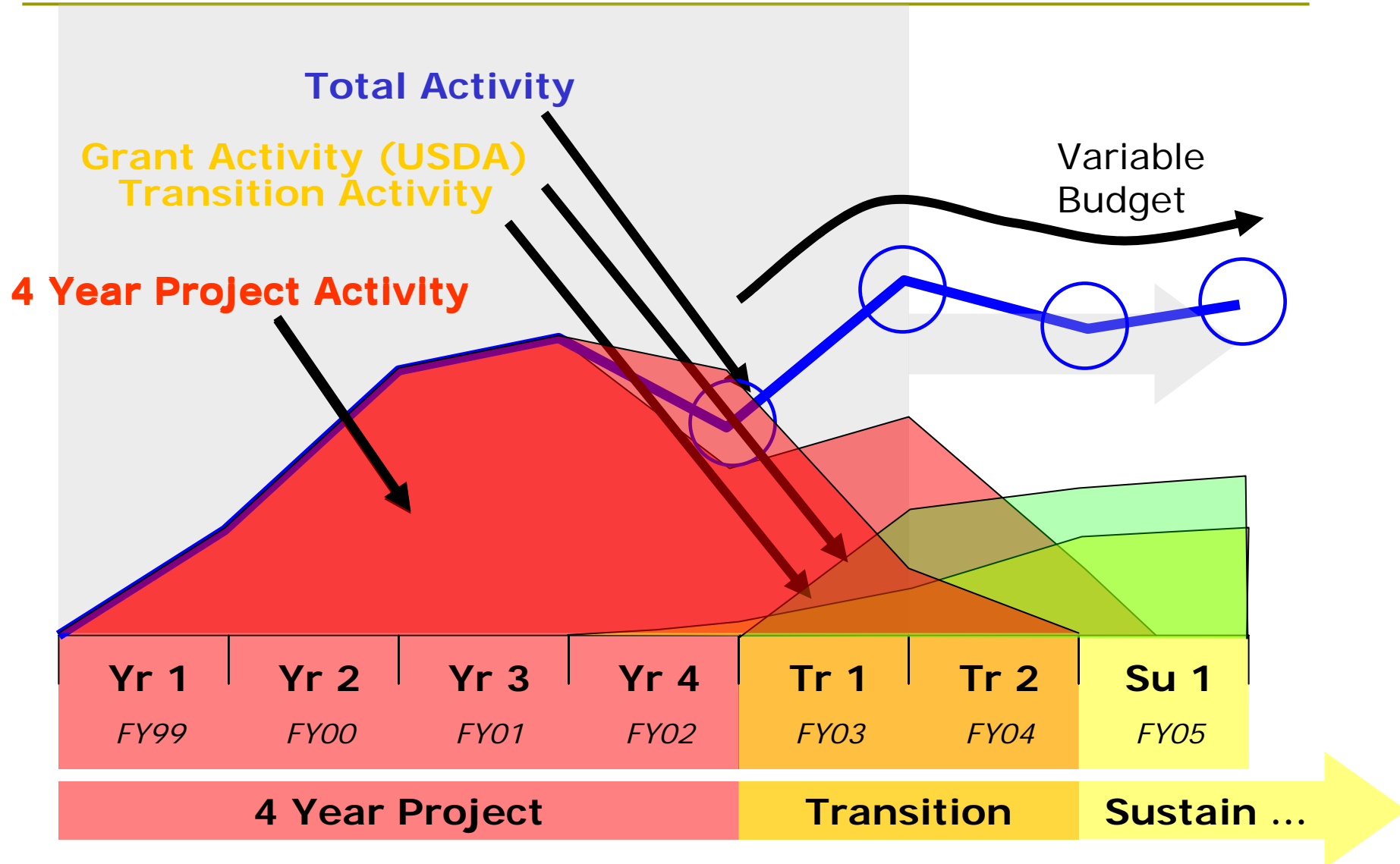
AFHCAN –
FY04 and the future

ASSUMPTION - Overall Activity Should Decrease

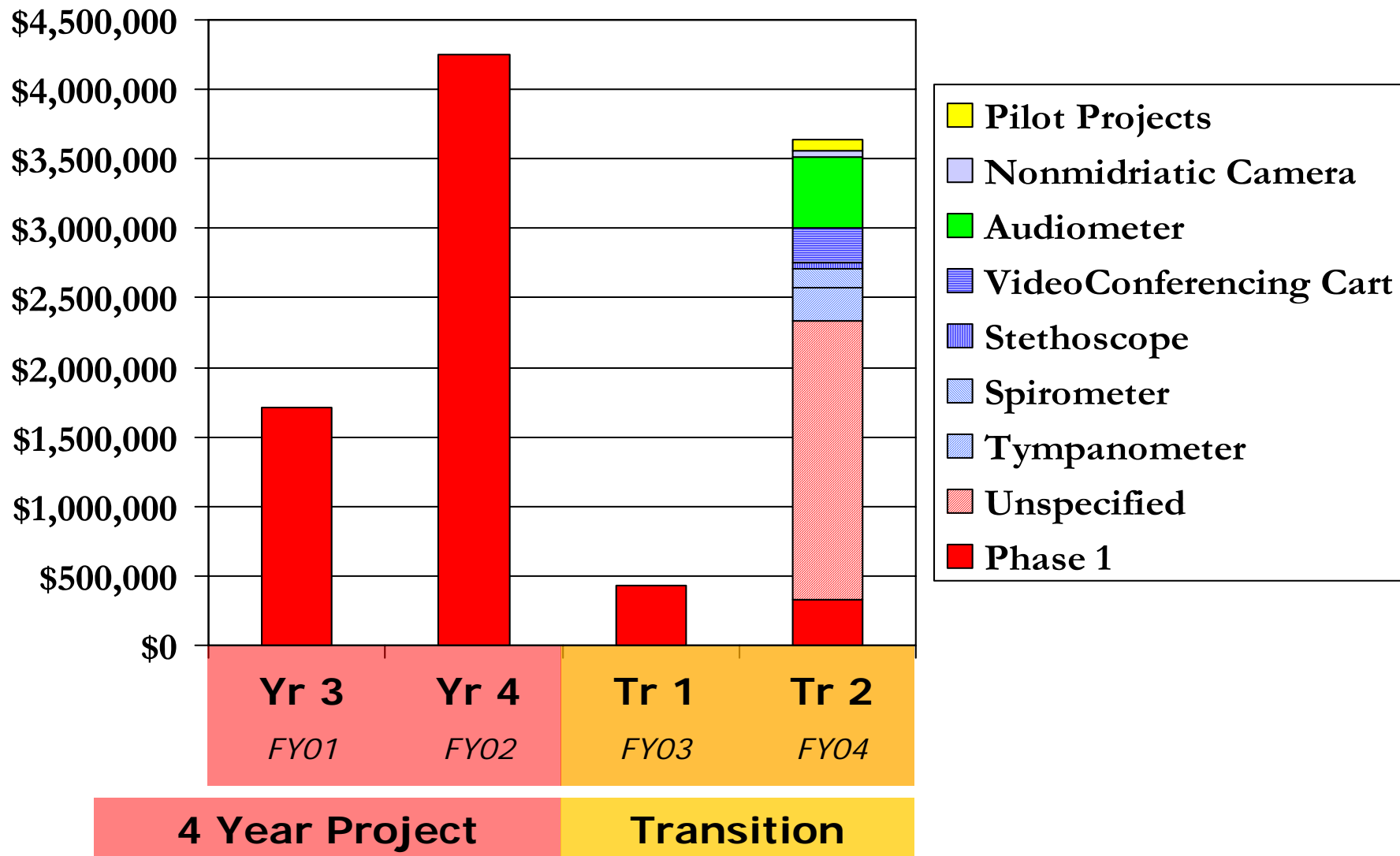


REALITY -

Overall Activity May Increase



Equipment Deployment



AFHCAN Development

- Security
- New version in .Net
- Staffing up support, training, and evaluation
- Merge help desks
- Documentation
- Evaluation and benefits analysis
- Non-Alaska pilots
- Sustainability – Business Model

FDA Concerns

- AFHCAN has registered its software and server as Class 1 and cart as Class 2 medical devices.
- AFHCAN has to implement a rigorous Quality Systems approach to meet FDA requirements for manufacturing medical devices.

Framework for the Advancement and Sustainment of Telehealth

- FAST is a planning process within ANTHC and AFHCP to develop a plan for telemedicine in ANTHC/AFHCP/Alaska for the next 4 years.
- A framework will be developed by 1/1/04.
- There are many different opinions.

AFHCAN Future

- Funding unknown
- Sale of hardware, software, services?
- Alaska – US federal – US – International?
- IS THERE A FUTURE IN THE
BUSINESS OF STORE AND FORWARD
TELEMEDICINE?

Innovation and Evaluation: An International Telehealth Conference

- March 4-5, 2004, Anchorage Alaska
- Alaska, national, and international speakers
- Surprise keynote speaker
- In conjunction with 3-day Alaska Rural Health Conference
- Information & Registration:
<http://www.ruralhealthconference.com>
- Abstracts due November 30
- Followed by the Iditarod start and field trips